

CHELSEA CREEK COMMUNITY BASED COMPARATIVE RISK ASSESSMENT CONCLUSION

I. Report on Project Goals & Objectives

The Chelsea Creek Community Based Comparative Risk Assessment (Chelsea Creek CRA) was a unique project, sponsored by the Chelsea Creek Action Group (CCAG), the East Boston Ecumenical Community Council, U.S. EPA - Region 1, and the Greater Boston Urban Resource Partnership. The CRA was designed to allow the communities of East Boston and Chelsea to determine research priorities by identifying the environmental, public health, and social issues of greatest concern. While a traditional risk assessment has detailed protocols and criteria to follow, this project forged a new path and integrated community participation throughout the entire project. This process used both technical and non-technical methods to determine priority issues and gather together all available local data and information to improve the understanding of what environmental and public health risks might be present for residents in East Boston and Chelsea. The six priorities were examined in a broad context, with attention focused on gathering available data. A panel of local technical experts was convened to assess each issue and gather information on the potential for exposure, the potential for health impacts, and how these are managed in the context of local, state, and federal regulations. A panel of local community residents was also created to ensure continued public input throughout the two year project period.

There were several goals of the Chelsea Creek CRA: 1) to engage local residents and provide them with a baseline of information on potential exposures and risks from targeted environmental, public health, and social issues in East Boston and Chelsea; 2) to serve as a tool to help residents and community organizations understand environmental risks and use the information to prioritize action steps for future change; and 3) to engage and inform federal, state, and local government agencies about local environmental conditions and resource needs to better focus available resources to meet current needs.

Part of the innovation in this project was the creation and coordination between three committees: the Coordinating Committee, Resident Advisory Committee, and the Technical Advisory Committee. Significant staff time was dedicated by project partners to ensure effective communication between participants of each committee. Setting up a workplan and timeline for this project and determining how decisions would be made ultimately resulted in a product that all members had a hand in creating and could endorse as a foundation for future actions.

Community involvement was a critical part throughout every phase of this project. Initial surveys and community meetings were conducted in East Boston and Chelsea so that a broad range of opinions would be reflected. Two public meetings were also held to solicit broad neighborhood-wide input from local residents. The Resident Advisory Committee (RAC) was composed of resident volunteers to maintain the community focus of the project and

ensure that the final product would meet community needs to the greatest extent possible. Although Chelsea and East Boston have well established community groups that address many different environmental issues, bringing residents into this project was challenging. The Chelsea Creek CRA was not a typical activist project. The project was intended to create a baseline assessment of information to guide decision making and actions rather than achieving an immediate measurable environmental improvement for the neighborhoods. It was a project dedicated to studying the complexities of environmental regulation and understanding technical issues, and it required a large time commitment. Despite these challenges, community input was consistent and citizens that participated dedicated hundreds of hours of time and added immense value into the final product.

The number of residents regularly participating in the RAC was smaller than originally targeted. There were between 5-10 citizens that were consistently active in each meeting. The lower citizen participation rate was likely due to several factors. The long duration of the project (over 2 years) and the large time commitment required (regular evening meetings for over 1 year) limited the number of residents that could donate their time. Some of the residents who expressed interest in joining the process half-way through the project were frustrated because of the amount of preparation time required to effectively be involved in the discussions. Frequently residents were asked to read detailed chapters of information in advance of a meeting and come with questions and concerns. Since the majority of RAC members were residents from East Boston and Chelsea that were already involved in community activism, this represented a considerable burden. In addition to increased participation, more diversity across race and ethnicity, neighborhood, and previous involvement should be a goal for future projects that replicate this level of citizen participation. There is no doubt that this level of citizen involvement resulted in a better quality final product and should be replicated in future projects.

II. Key Chelsea CRA Findings

Data on environment and public health issues in Chelsea and East Boston is insufficient.

One of the most important issues that emerged consistently throughout the Chelsea Creek CRA was the lack and quality of data on environmental and public health data in Chelsea and East Boston. At the beginning of the project, there was a perception that data was available but might be difficult to locate. This proved to be a misperception. Throughout the project it became apparent that very little data has been gathered on any of the six priority issues at a local level. Table 20 summarizes the data gaps identified for the six priority issues. This table illustrates how little is actually known about the quality of water in the Chelsea Creek, the level of pollutants in the air, the number of people suffering from asthma, or the burden of traffic through the urban neighborhoods of East Boston and Chelsea.

The lack of data is not necessarily unique to Chelsea and East Boston; for example, water bodies statewide are typically subject to very little sampling, and air quality assessments nationwide are based on modeling and regional monitors. However, as urban residents are

subject to a greater number of potential environmental impacts including high traffic

volume, close proximity of industry and residential areas, and aging housing stock, more rigorous oversight is warranted. It is also very important to dispel the myth that was initially encountered and is often stated to residents – that the data is out there, just not centralized in one particular agency or department. As a result of this process, it is clear that the data often does not exist at the local, neighborhood level. It is clear that more sampling and technical assistance is needed at a neighborhood level so that public health can be adequately protected and in order to help residents and community groups understand the quality of their air, water, and land and the public health implications.

Even when local data exists, the quality is unacceptable.

The Chelsea Creek CRA process also illustrated that even when local data exists, the quality of data can be problematic. Much of the current data collected on water and air emissions comes from industries that are essentially self-regulating. RAC members were very surprised by this system and expressed great concern that there is little independent verification of data or enforcement of existing regulations. Other data problems include the difficulty in obtaining uniform and accurate data. For example, the official numbers used to compare public open space in communities varied widely based on what is considered open space; often these official numbers do not reflect the reality in the neighborhoods. Based on more stringent criteria for open and green space, the Chelsea Creek CRA adjusted the data on available open space from the official measure of 9.55 acres per 1000 residents in East Boston to 4.4 acres per 1000 residents. Similar analyses were performed for Chelsea.

The regional nature of data collection and the quality of industry generated data are issues that are compounded when data is used for computer modeling. This problem is particularly critical when assessing ambient air quality, for which models are used in lieu of local, neighborhood level data collection, and county level assessments may mask variations in local conditions. The models are only as good as the information that goes into them, and since there is little data, it is possible that the models predict significantly better conditions than actually exist in urban areas. RAC members were very angry when they learned more about modeling in ambient air quality, and it was the most hotly contested chapter in the report. This topic was particularly sensitive for local residents because a local ambient air quality monitor was recently moved from Chelsea to another neighborhood. Increased sampling efforts are clearly needed to give regulators and residents a better understanding of air quality, rather than exclusively relying on current modeling techniques.

Current regulations (federal, state and local) do not adequately protect the health of urban residents or the quality of the environment.

Another key finding uncovered through the Chelsea Creek CRA project involved the current state of regulation on environment, public health, and social issues of interest to local residents. As residents reviewed the information, it became clear that current regulations did not provide the kinds of local environmental and public health protection that residents in East Boston and Chelsea need and want. Regulation is done piecemeal, industry by industry,

and does not create a holistic way to understand the cumulative impacts of multi-media contamination for local residents. Furthermore, regulations are carried out by many different agencies (federal, state and local) and information sharing between the organizations is often very difficult or nonexistent. Varying standards, regulations, guidance, ordinances, and processes can be difficult to work with and even more difficult to explain succinctly to interested residents. Finally, even if regulations exist, they may not be enforced to the level that residents feel is necessary to protect public health. One example of this is the multi-ton Eastern Minerals salt pile which is regulated by the MA DEP. State regulations require salt piles of this magnitude to be covered with a permanent structure, yet for more than 20 years, the salt pile remained uncovered. Residents have informed the DEP of this requirement, and directly requested that the DEP enforce the law, but the DEP has chosen to allow the company to utilize a temporary plastic cover and allow the gigantic salt piles to continue to tower over the property fence, allowing particles to flow directly into the Chelsea Creek and impact residents living across the street. It is evident that there is still much to do to engage and involve agencies to work together across federal, state and local levels to address environment and public health problems in Chelsea and East Boston.

Actions are needed from local, state, and federal government agencies to address data gaps, information quality, and making measurable progress on issues.

As a result of these concerns, the CRA has made several levels of recommendations. One level suggests policy changes that would create the type of regulation that Chelsea and East Boston need and want to restore and protect the quality of the environment and improve public health. The impact of such large scale changes could be immense, but tackling policy reform is a long-term project that requires many resources and much political and social will. Some of the recommendations are also geared at finding information that will help agencies, community groups, and residents draw a more complete picture of local environment and public health conditions. Collecting this data and filling the existing data gaps would have two advantages: it would make it possible to more accurately understand and predict problems and link impacts to direct causes, and it would also make agencies more accountable and present in the neighborhoods. However, this recommendation should not be misconstrued to mean that data collection should continue indefinitely without action or progress on an environment or public health issue. Residents and community groups are not interested in data collection that does not lead to progress, changes, and measurable improvements in the quality of the environment and public health for local residents.

Many of the recommendations discuss the need to work with existing organizations and agencies. This work takes on two forms – advocacy and partnering. While this project has increased the number of groups and individuals that are familiar with the problems and challenges facing East Boston and Chelsea, continued advocacy is needed to translate that awareness into the diversion of resources and share this information with a broader audience. Partnering is especially useful between similar-minded groups, as a larger constituent base can wield more influence.

Actions are needed from local residents to hold government agencies accountable for their roles and to make improvements on issues.

Members of the RAC and the TAC also recognized that individual action is also a critical part of the equation. Local residents must continue to hold government agencies accountable for their roles and actions and must also take personal responsibility for the environmental and public health impacts from individual actions. Residents felt strongly that individual actions were not the primary cause for concern within the six chosen topics, but some individual behaviors – especially when adopted by groups – can make a significant difference. Some of the recommendations deal with changes in lifestyle that will help eliminate sources of pollution such as car exhaust and pesticides. In the long run, point-source pollution prevention will need to be supplemented by changes in consumer behavior and individual choice.

III. Next Steps and Continued Actions for the Chelsea Creek and the Communities of East Boston and Chelsea

The Chelsea Creek CRA, and the shared knowledge generated as a result of the project, are intended to be used as tools for the widest possible audience. The report will be publicized through various public events, and notices of availability will be posted through the mail and other public media. Full copies of the Chelsea Creek CRA will remain in public libraries in East Boston and Chelsea and at the offices of the Neighborhood of Affordable Housing, Chelsea Greenspace & Recreation Committee, and US EPA New England.

Small sessions were held with four groups (EB-CCAG, Chelsea Greenspace, East Boston Greenway Council, and the Otis School Parents Group) to present some of the findings and determine which issues were most appropriate for follow-up and next steps. During those meetings, issues of air pollution and traffic generated the most energy and concern, however, residents felt that all of the issues deserved follow up treatment of some kind.

Residents also identified a number of actions and area of investigation for the EPA and other agencies to pursue that would enhance the information in the Chelsea Creek CRA. These included:

Water and Air Quality

- Create a Chelsea Creek Task Force, spearheaded by the EPA, including representatives from state and local agencies. The purpose of this task force will be to coordinate available data, ensure that appropriate enforcement actions are taken, and promote pollution prevention. The task force will be coordinated by one EPA staff person.

Water Quality

- Coordinate meeting/communication between CCAG and Oil Consortium.

- Designate resources for sediment and water quality studies.
- Provide written report on follow-up actions that the EPA has taken in response to information provided in the Hazardous Oil Study prepared in 1999.

Air Quality/Traffic

- Collect local air quality data, via spot sampling and installation of air quality monitors. Collaborate with state and community to share data.
- Collect traffic data; correlate with cumulative air quality data and public health impacts.
- Inform CCAG of all enforcement actions occurring in Chelsea and East Boston regarding anti-idling laws.
- Create a program with incentives for the diesel retro fitting of heavy machinery and trucks owned by businesses along the Creek.
- Fund training or enforcement of diesel traps for heavy machinery and trucks operated along the Creek.

Open Space

- Help direct Supplemental Environmental Projects to obtain and develop open space along the Chelsea Creek as envisioned in the Chelsea Creek Community Vision Plan.

The recommendations at the end of each chapter have also started to serve as a baseline of information from which more detailed projects are being initiated. For example, the Traffic chapter illustrated the lack of data on traffic patterns and counts. In the spring of 2002, students from the Worcester Polytechnic Institute conducted a detailed study of traffic at key East Boston and Chelsea intersections. The results of the study, including traffic counts, a breakdown of traffic by vehicle type, and truck exclusion violations are posted on a website that the students created. The study produced unique local traffic data for several locations in East Boston and Chelsea and documented that the majority of traffic at several heavily traveled intersections was residential vehicles and not trucks as was initially thought. For example, at Central Square in East Boston an average of 18,914 vehicles traveled through the intersection on a regular workday. This comprised of 17,999 cars, 533 buses, 342 2-axle trucks, and 67 larger trucks (3 axles or more). The students also investigated each open space site in order to record the conditions at each site and to create an inventory of open space that could be used by local residents. The visual evaluation and photographs taken by the students verified the wide disparity in open space definitions between official records and community advocates. The final website is now hosted on a permanent basis by Tufts University and can be expanded over time to collect data and revise as new information is available on critical issues of interest.

Projects like this illustrate the power of taking baseline information and findings from the Chelsea Creek CRA and starting to fill in the information gaps to better understand a complex problem and raise awareness to inspire future actions.

The time and energy dedicated to this project over the last two years has certainly met and exceeded the original scope of project expectations. There are now more residents, community groups, technical experts, and government actors that are aware of the data issues and challenges illustrated in this report and there are commitments from the groups involved to continue doing what they can to ensure increased resource investment into Chelsea and East Boston in the future. There were many challenges that were overcome to produce a final report of this quality and many risks taken in trying something new and untested, but it was time well spent. The value of engaging, involving, and informing the communities of Chelsea and East Boston and the results of this project were worth the effort and have demonstrated that unique approaches to understanding and assessing risk to public health are needed in order to create healthier neighborhoods in urban areas.